



**DEPARTMENT OF TRANSPORTATION**

**National Highway Traffic Safety Administration**

**[Docket No. NHTSA-2022-0044]**

**Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Request for Comment; Field Study of Heavy Vehicle Crash Avoidance Systems**

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

**ACTION:** Notice and request for public comment on an extension of a currently approved information collection.

**SUMMARY:** In compliance with the Paperwork Reduction Act of 1995 (PRA), this notice announces that the Information Collection Request (ICR) summarized below will be submitted to the Office of Management and Budget (OMB) for review and approval. The ICR describes the nature of the information collection and its expected burden. The ICR is titled “Heavy Vehicle Crash Avoidance Systems” and is identified by OMB Control Number 2127-0741. It is currently approved through August 31, 2022. This project was delayed due to COVID-19 shutdowns and precautions. The extension is necessary to continue the current data collection to completion. This extension request updates the burden hours to reflect the numbers of respondents that are needed to complete the study, updates to time estimates for responses, and mean hourly rates. Additionally, this notice provides clarification on the burden hours and the costs to the public. A Federal Register Notice with a 60-day comment period soliciting comments on the following information collection was published on May 10, 2022. Two comments were received, both in support of the data collection.

**DATES:** Comments must be submitted on or before [INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Written comments and recommendations for the proposed information collection, including suggestions for reducing burden, should be submitted to the Office of Management and Budget at [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). To find this particular information collection, select “Currently under Review – Open for Public Comment” or use the search function.

**FOR FURTHER INFORMATION CONTACT:** For additional information or access to background documents, contact Jenny Zhang, Office of Vehicle Safety Research, National Highway Traffic Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC, 20590, Telephone: 202-366-3973; email address [jenny.zhang@dot.gov](mailto:jenny.zhang@dot.gov). Please identify the relevant collection of information by referring to its OMB Control Number.

**SUPPLEMENTARY INFORMATION:** Under the PRA (44 U.S.C. 3501 *et seq.*), a Federal agency must receive approval from the Office of Management and Budget (OMB) before it collects certain information from the public and a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. In compliance with these requirements, this notice announces that the following information collection request will be submitted OMB.

**Title:** Field Study of Heavy Vehicle Crash Avoidance Systems.

**OMB Control Number:** 2127-0741.

**Form Number:** None

**Type of Request:** Extension to currently approved collection.

**Type of Review Requested:** Regular

**Length of Approval Requested:** Three years

**Summary of the Collection of Information:** The National Highway Traffic Safety Administration (NHTSA) is gathering information regarding drivers’ naturalistic driving

experiences and opinions about crash avoidance systems (CAS) consisting of Lane Departure Warning, Forward Collision Warning, Impact Alert, and Automatic Emergency Braking for heavy vehicles.

CAS technology has been advancing rapidly, with products for heavy commercial vehicles becoming commercially available. These systems present opportunities for improving driver awareness and behavior, improving drivers' responses to potential collisions, and mitigating or preventing collisions when drivers do not respond. The newest generation of CAS technology includes several new features, such as multiple sensors, improvements to radar algorithms, and new features such as full braking in response to static objects or pedestrians. However, it is unknown if this newest generation of products has been able to reduce the prevalence of false or nuisance alerts observed in the previous study, if there are any issues with new types of alerts that have been added since previous studies, or whether drivers have negative perceptions of the technology due to these issues. As these technologies become more popular with fleets, it is important to understand their real-world performance and any unintended consequences that may arise from them.

Data collection began in August 2021 after COVID delays and a shortage of chips necessary for use in the data acquisition system necessary for the naturalistic driving portion of the study. As of December 31, 2021, one respondent has completed the study, three are in the field study portion, and one has completed the informed consent document and pre-field study surveys but still needs to go through the installation portion of stage one and stages two to three of the study. Information in this extension requests refers to the respondents and burden associated with completing the study.

**Description of the Need for the Information and Proposed Use of the Information:** The collection of information consists of: an informed consent for participation, a demographic questionnaire, an initial CAS technology questionnaire, and a post-study CAS technology questionnaire.

The information to be collected will be used as follows:

- *Informed Consent* is collected from respondents who agree to participate in the study; the informed consent has been approved by an Institutional Review Board.
- *Demographic questionnaire* is used to obtain demographic information so that potential analysis may account for participants from various groups (e.g., age, self-identified gender, driving experience, and experience with CAS technology).
- *Initial CAS technology questionnaire* is used to get information about drivers' beliefs and attitudes towards the CAS technology installed on the commercial vehicle they use for their job prior to data collection. This questionnaire assesses perceived usability of the systems in terms of acceptance and satisfaction, as well as willingness to have this technology in their vehicle.
- *Final CAS technology questionnaire* is used to get information about drivers' beliefs and attitudes towards the CAS technology installed on the commercial vehicle they use for their job and is collected at the end of data collection. This questionnaire will also be used to assess perceived distraction potential of the systems in terms of acceptance and satisfaction, as well as willingness to have this technology in their vehicle. Each driver will complete the questionnaire once, after the completion of his or her data collection. The questionnaire will gauge how drivers' attitudes and preferences may have changed over the course of participation.
- Each participating driver will have a data acquisition system (DAS) installed in their vehicle for approximately three months while they perform their normal work duties. This system will collect video of the driver and forward roadway, telemetry, and vehicle network data related to driving, and activations of the vehicle's CAS.

**60-Day Notice:** A Federal Register notice with a 60-day comment period soliciting public comments on the following information collection was published on May 10, 2022 (87 FR 28099). Two comments were received in response to the Notice.

The Texas Department of Transportation (Texas DOT) expressed their support of the collection as “inherent to NHTSA’s role in understanding and establishing standards for vehicle safety.” The Texas DOT further stated that “[i]t is critical that NHTSA complete its studies to capture the most effective and valuable advanced driver assistance systems (ADAS) available.” The second comment was submitted by the National Association of Mutual Insurance Companies (NAMIC) and expressed support for the data collection in order to further assess the efficacy of the systems and the human interaction with them. NAMIC provides, in direct response to comment about the burden estimates in the 60-day Notice, “the burdens estimated by NHTSA for the collection seem accurate and appropriate to obtain the quality and quantity of information sought by NHTSA for this valid purpose.”

In addition to the comments received, an article titled “*NHTSA Seeks OK to Extend Data Collection for Safety Tech Study*” was published on May 10, 2022 (<https://www.ttnews.com/articles/nhtsa-seeks-ok-extend-data-collection-safety-tech-study>). The article discussed information in the 60-day Notice and the NHTSA’s efforts to seek an extension to the information collection. Subsequent to that publication, another reporter inquired with NHTSA’s Office of Communications and Consumer Information requesting details; however, NHTSA is not aware of any additional articles published regarding the collection.

**Affected Public:** Respondents to this study are drawn from a convenience sample from trucking fleets across the United States. Drivers are recruited from fleets that have signed agreements with the research team and have trucks that are outfitted with CAS technologies. Recruitment will attempt to balance the number of vehicles using particular brands of CAS technology but will be

subject to fleet availability and scheduling constraints. Requirements of drivers involved in the study do not extend beyond employment requirements for each fleet.

**Estimated Number of Respondents: 170**

NHTSA's goal is to collect field evaluation data from a total of 150 respondents. To date, one participant has fully completed the study. In order to collect complete field evaluation data from an additional 149 participants, and to account for drop-outs, NHTSA estimates that it will need to recruit an additional 170 respondents for initial phases of the study.

**Frequency:** The Informed Consent Form, Demographic Questionnaire, and Initial CAS Technology Questionnaire are completed once at the start of participation and data collection. The Final CAS Technology Questionnaire is completed once at the completion of participation, approximately three months later.

**Number of Responses:** 170 for the consent form (one per respondent); 170 for the Demographic Questionnaire (one per respondent); 170 for the Initial CAS Questionnaire (one per respondent); 149 for the Final CAS Questionnaire (one per respondent) that completes the study.

**Estimated Total Annual Burden Hours:** 123.6 hours total.

**Estimated Total Annual Burden Cost:** Zero

Table 1. Burden Calculations and Estimated Opportunity Cost

	<b>Instrument</b>	<b>No. of Respondents</b>	<b>Estimated Time for Completion</b>	<b>Total Estimated Burden Hours<sup>†</sup></b>	<b>Hourly Wage</b>	<b>Estimated Total Opportunity Cost</b>
Stage One	Informed Consent Form	170	20 min	57 hours	\$23.42	\$1,334.94
	Demographic Questionnaire	170	5 min	15 hours	\$23.42	\$351.30
	Initial CAS Technology Questionnaire	170	25 min	71 hours	\$23.42	\$1,662.82
Stage Two	Naturalistic Driving Study	171	N/A	N/A	N/A	N/A
Stage Three	Final CAS Technology Questionnaire	149	25 min	63 hours	\$23.42	\$1,475.46
			Total Burden Remaining	206 hours		\$4,824.52
			Months Remaining	20		
			Annual Burden Remaining	123.6 hours		\$2,894.71

The above table reflects the annual burden hours to be 123.6 to complete data collection. While the table reflects opportunity costs, this is not a burden incurred by the public for this information collection. The annual burden cost to respondents is zero.

The previous notice estimated total burden hours for this study to be 193.5 total. The total number of burden hours to complete data collection is now 206 based on updates to the time for the Informed Consent and the Demographic Questionnaire. Opportunity costs have been updated

to reflect current average hourly wages; however, NHTSA estimates these opportunity costs to be fully offset by compensation provided to the respondents for participation.

Due to COVID-19 shutdowns and precautions, data collection efforts were suspended. NHTSA anticipates additional time beyond the August 31, 2022, expiration date of the currently approved collection to complete this effort. The federal government began this study at \$2,581,075 in contract expenses and has added expenses due to the time delays and resulting changes in technology. The total cost expected at this time is \$2,954,970, with an annualized cost to the federal government over the expected study time-to-completion of \$402,950.

**PUBLIC COMMENTS INVITED:** You are asked to comment on any aspects of this information collection, including (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

**AUTHORITY:** The Paperwork Reduction Act of 1995; 44 U.S.C. chapter 35, as amended; 49 CFR 1.49; and DOT Order 1351.29.

Issued on August 25, 2022.

**Cem Hatipoglu,**

*Associate Administrator,  
Vehicle Safety Research.*

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